

P2-36 The impact of Iron Deficiency for Long-term Prognosis in Patients with Acute Heart Failure

(循環器内科)

○中野 宏己、近森大志郎

(国立循環器病研究センター：心臓血管内科)

永井 利幸、本田 泰之、本田 怜

岩上 直嗣、菅野 康夫、浅海 泰栄

相庭 武司、野口 暉夫、草野 研吾

小川 久雄、安田 聡、安斉 俊久

(National Heart & Lung Institute, Imperial College London, London, United Kingdom)

永井 利幸

(北海道大学大学院医学研究院：循環病態内科学教室)

永井 利幸、安斉 俊久

(国立循環器病研究センター：統計解析室)

中井 陸運、西村 邦宏

Backgrounds: Iron deficiency (ID) is commonly observed in chronic heart failure (HF) patients and is associated with worse clinical outcomes. While ID is a frequent finding in acute HF (AHF), its impact on long-term prognosis in AHF patients remains unclear.

Methods: We analyzed 850 patients from the National Cerebral and Cardiovascular Center Acute Decompensated Heart Failure registry (January 2013–May 2016). Absolute ID was defined as serum ferritin <100 µg/L and functional ID (FID) was defined as serum ferritin 100–299 µg/L with transferrin saturation <20%. Cox regression adapted for competing events was used to evaluate the association between ID and risk of all-cause mortality or HF admission at one year.

Results: After excluding patients with incomplete data on iron studies, 578 patients were included in the final analysis. The primary outcome was composite of all-cause mortality and HF admission at one-year post-discharge. Among them, 185 had absolute ID, 88 had FID and 305 had no ID. Patients with absolute ID had more adverse events than those with FID or no ID ($P = 0.021$). In multivariate Cox regression, absolute ID was significantly associated with increased risk of adverse events (HR 1.50, 95% CI 1.02–2.21, $P = 0.040$).

Sensitivity analysis revealed that its prognostic effect did not differ across anemic status, or between HF with reduced and preserved ejection fraction (P for interaction = 0.17, 0.68, respectively).

Conclusions: Absolute ID, but not FID, was associated with an increased risk of one-year mortality or HF admission in patients with AHF. Further studies are required to evaluate the role of repleting iron stores and its impact on clinical outcomes in patients with AHF.

P3-37 Non-destructively differentiating degeneration grades of anterior cruciate ligament: a preliminary spectroscopic study

(社会人大学院博士課程4年整形外科)

○松永 怜

(骨・関節バイオマテリアル研究寄附講座、整形外科)

高橋 康仁

(人体病理学)

高橋 礼典、長尾 俊孝

(整形外科)

山本 謙吾

※抄録の掲載を辞退する。

P3-38 Increased muscle oxygenation during constant work exercise measured by near-infrared time-resolved spectroscopy in endurance athletes

(大学院博士課程3年健康増進スポーツ医学)

○遠藤 祐輝

(健康増進スポーツ医学)

木目良太郎、渡辺 翼、布施沙由理

村瀬 訓生、黒澤 裕子、浜岡 隆文

Endurance athletes have high muscle O₂ supply capacity due to developed capillarization. However, there is no method which can noninvasively and quantitatively evaluate muscle O₂ supply during exercise. Thus, the aim of this study was to compare the changes in muscle oxygenation during constant work exercise (CWE) between endurance-trained and untrained